

### **ABSTRACT**

A photovoltaic powered charging unit is mounted in a head covering, such as a cap or hat, for a patient who has an inductively chargeable medical device implanted in his head. The implanted device includes an implanted battery which powers the device. The photovoltaic cells provide continuous charging for the implanted battery and power for the implanted device when subjected to light. The charging unit includes a nonphotovoltaic cell that may be used to charge the implanted battery and power the implanted device in the absence of sufficient power from the photovoltaic cells. The cap has a sending coil located so that when the wearer dons the cap, the sending coil aligns with a receiving coil implanted in the patient's skull or brain. The implanted receiving coil is coupled to provide charging current to the implanted battery and power to the implanted device.